

Based Upon: PCT/EP99/06656

translatory portion, a rotatory displacement portion and a deformation portion, wherein individual recordings are made for producing image sequences synchronously with a surface movement, and conclusions regarding a movement of the surface (5) or a chronological change of the movement are drawn from a detected position of the lines in the image sequences, ~~the improvement comprising:~~

the individual recordings made with an electronic camera in a fixed phase position in relation to an oscillation excitation and at a corresponding short exposure time the movement of lines during the exposure time being negligible, and the individual recordings added in an image recording component (9) of the electronic camera to a summed image with a contrast, which is sufficiently high for evaluation, and is read out in a read-out cycle.

2. (Amended) In the ~~measuring~~ method in accordance with claim 1, wherein a plurality of summed images with a changed phase position (35 to 38) of one of interfering waves and projected lines are recorded in accordance with a phase shift method, the summed images are respectively recorded for surface movements with at least two different amplitudes, the summed images are balanced with each other, and a change of one of an interference phase and a line phase because of the

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movement change is calculated for each surface point and conclusions regarding the movement of the surface are thus drawn.

B 3. (Amended) In the ~~measuring~~ method in accordance with claim 2, wherein the summed images with different phase positions (35 to 38) of a recording time in regard to excitation are generated, and a linkage between the excitation and the oscillation phase is derived from an analysis of the summed images as a function of a phase position (35 to 38).

A' Cont'd
B 4. (Amended) In the ~~measuring~~ method in accordance with claim 3, wherein an excitation frequency is varied, and conclusions are drawn regarding oscillation shapes of the moving surface (5) from the oscillation behavior as a function of a phase and frequency in accordance with a modal analysis.

B A
B 5. (Amended) ~~In a measuring~~ method for taking and evaluating ^{comprising steps of, obtaining} ~~line-images of a moving surface (5), such as obtained~~ by interferometry or line projection, wherein the moving surface (5) is excited to perform oscillations or other periodic movements at a fixed frequency, wherein the movements each has at least one of a translatory portion, a rotatory displacement portion and a deformation

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B portion, wherein chronologically averaged recordings of the movement are performed for different excitation parameters, ~~the improvement comprising:~~

recording images during a time period of one of the movement and a multiple of the movement,

recording the images with at least two excitation amplitudes of the moving surface (5),

A1 (cont'd) for each excitation period making several recordings with different phase positions of one of interfering waves and projected lines in accordance with a phase shift method, and

balancing the images with each other, wherein a change of one of an interference amplitude and a line amplitude is determined for each point on the moving surface (5) when one of the excitation amplitudes is changed, and conclusions are thus drawn regarding a change of a movement amplitude.

B 6. (Amended) In the measuring method in accordance with claim 5, wherein the measurement is performed several times with different excitation amplitudes, and with a given excitation amplitude conclusions regarding the movement amplitude are drawn from the one of the interference amplitude and the line amplitude, as a function of the excitation amplitude at each surface point.

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A1 (cont'd) 3

7. (Amended) In the ~~measuring~~ method in accordance with claim 6, wherein lines are created in accordance with one of an electronic speckle pattern interferometry method, a holographic interferometric method, a line projection method and a moiré method.

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Please add the following claims:

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8. In the ~~measuring~~ method in accordance with claim 5, wherein lines are created in accordance with one of an electronic speckle pattern interferometry method, a holographic interferometric method, a line projection method and a moiré method.

A2

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9. In the ~~measuring~~ method in accordance with claim 1, wherein an excitation frequency is varied, and conclusions are drawn regarding oscillation shapes of the moving surface (5) from the oscillation behavior as a function of a phase and frequency in accordance with a modal analysis.

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On a separate page, please add the following: **ABSTRACT OF THE DISCLOSURE.**